Framework for Interstate Movement Decisions During a Foot and Mouth Disease Outbreak in the United States

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DRAFT FOR DISCUSSION

Note: This document provides a framework for discussion between and among Responsible Regulatory Officials (Federal, State, Tribal) and industry to provide optimal protection from introduction of foot and mouth disease virus to a new area while maintaining business continuity for livestock producers and associated industries and safe and wholesome food to consumers. Any recommendations in this document are guidelines only, Responsible Regulatory Officials will make decisions based on available information at the time of the outbreak.

INTRODUCTION

The Agricultural Response Management and Resources (ARMAR) exercise in May 2018 made it clear that individual states will respond differently to FMD outbreaks due to their specific situations. Each State Animal Health Official (SAHO) is responsible for managing the outbreak response within their state. Livestock and processing industries vary widely between states and each state has different laws and regulations that impact their ability to respond to the outbreak and implement movement controls. There is a need for SAHOs to discuss approaches for controlling movement between states depending on the infection status of the states. This approach is likely to change from Phase 1 at the beginning of an FMD outbreak to Phase 2 as the outbreak is spreading and during Phase 3 as the outbreak is being brought under control. The approach taken by states needs to consider the recommendations that Federal Animal Health Officials make regarding animal movement, the SAHOs’ need to protect their livestock industries from infection, the business continuity needs of industry and the public’s need for a safe and wholesome food supply. In some cases, USDA may impose a Federal quarantine or other movement control by Federal Register Order (under the Animal Health Protection Act and Code of Federal Regulations) when requested by SAHOs or as directed by the Secretary of Agriculture. A framework of potential state responses and movement permitting based on the situation in each state will help to reduce uncertainty and encourage uniformity and cooperation. The response and recovery phases will likely need to be individualized state by state. States may decide to join with other states in a region to form a block of states with common plans and agreements to allow animal movement between states within the Region. This may be advantageous if neighboring states share the same status of the outbreak and animals need to cross state lines for slaughter or to move to a different premises for further production.

The FAD PReP Strategy Document: Classification of Phases and Types of a Foot-And-Mouth Disease Outbreak and Response (http://www.cfsph.iastate.edu/pdf/phases-and-types-of-an-fmd-outbreak) addresses the FMD status of the U.S. on a national scale. This current draft Framework for Interstate Movement document provides a possible designation for the FMD status of individual states. Having a framework for status of the outbreak by state could lead to agreement on movement between states based on the status of each state, on priorities for allocation of vaccine and other resources, and a
process for moving toward FMD free status for the nation. This document assumes that designation of Control Areas around infected premises within states would still continue where appropriate.

**National Phase 1** (See Phases and Types of FMD Outbreak document - http://www.cfsph.iastate.edu/pdf/phases-and-types-of-an-fmd-outbreak):

*The period of time from the confirmation of the first FMD case in the United States until there is reasonable evidence to estimate the extent of the outbreak. The transition to Phase 2 should be accomplished as soon as possible, with a goal of less than 4 days (96 hours).*

A nationwide standstill (perhaps 72 hours) of susceptible species may be recommended by USDA APHIS upon the first confirmed case of FMD infection in the U.S. It will be up to the SAHOs to decide if and how they will implement the standstill in their state and when to lift the standstill order. Four aspects to consider are:

- Disposition of animals in transit
- Movement of milk
- Rapid surveillance to find infected herds
- Restarting movement after a 72 hour standstill

**Disposition of animals in transit:** Standard guidelines that SAHOS can agree on regarding disposition of animals in transit at the beginning of the outbreak could reduce confusion and facilitate rapid decision making at the beginning of an outbreak. The Secure Food Supply plans make recommendations regarding managing movement of cattle and swine originating in a Control Area at the beginning of an FMD outbreak:

http://securebeef.org/Assets/SBS_Managed-Movement_DRAFT.pdf

http://www.securepork.org/Resources/SPS-Plan_Update_AppendixD_ControlledMovt_28Jan2016.pdf

A nationwide standstill recommendation would involve all susceptible animals. SAHOs will need to decide how the animals in transit at the beginning of an outbreak will be “landed”. Refusal to allow animals in transit to cross state lines to either get to their destination, or to return to the site of origin will result in many animals trapped in the state they happen to be in when the standstill is initiated. Unless animals originated from a known infected premises, they should be allowed to continue to their intended destination. If there is any concern that they may be infected, they should be quarantined away from other susceptible animals at their destination.

**Movement of Milk:** A 72 hour nationwide standstill recommendation will likely not include stopping movement of milk from premises that are not infected, suspect, or contact premises.

The Secure Milk Supply plan states:

*Dairy premises in any FMD Control Area that are NOT designated as Infected, Suspect, or Contact Premises will be informed by Responsible Regulatory Officials that they either:*
1. Continue moving milk to processing with or without additional requirements (such as a National Premises Identification Number (PIN), increased premises biosecurity, truck and driver biosecurity, and/or some form of pre-certification by their state) depending on the characteristics of the outbreak.

OR

2. Stop movement of milk, become a Monitored Premises (which requires having a valid PIN, and be inspected to ensure adequate biosecurity and surveillance) and obtain a permit to move milk to processing. In the event a permit is required, guidance is included in the SMS Plan.


Possible consensus recommendations from NASAHO regarding interstate movements at the beginning of an FMD outbreak:

A. During Phase 1 of an FMD outbreak, animals already in transit that are not from an infected, suspect or contact premises should be allowed to cross state lines to reach their intended destination or to be returned to their original premises.

B. During Phase 1 of an FMD outbreak, if APHIS officials recommend a 72 hour standstill, animals in transit at the beginning of the standstill from anywhere in the U.S. which are not from an infected, suspect or contact premises should be allowed to cross state lines to reach their intended destination.

C. During Phase 1 of an FMD outbreak, if APHIS officials recommend a 72 hour standstill, animals which are ready for harvest and that do not originate from a Control Area or an exposed system or network, may be allowed to be shipped directly, with truck and driver biosecurity, to a slaughter plant for processing.

D. During an FMD outbreak, raw milk, including raw milk which has been allowed to leave a Control Area, with truck and driver biosecurity, should be allowed to cross state lines for pasteurization and further processing.

Rapid surveillance to find potential infected herds: Accredited veterinarians, who have completed specific training (See Appendix) may be allowed to collect (or direct the collection of) samples from herds with a disease complaint that meet criteria for suspicion of FMD infection (See Appendix) and submit them to an approved NAHLN lab for FMD PCR testing. This will allow a quick assessment of the extent of the FMD outbreak. A state will not be designated as infected until the USDA APHIS Foreign Animal Disease Diagnostic Laboratory (FADDL) confirms a positive diagnosis. Rapid and extensive testing for FMD will provide a quicker status of FMD infection in the U.S. to guide decision making and transition to Phase 2. NASAHO will need to work with USDA to gain support for a rapid surveillance plan and to discuss who will pay for sample collection and testing.

Restarting movement after a 72 hour standstill: There is likely to be little confidence within the first weeks after an outbreak in the U.S. that premises outside of Control Areas are negative for FMD infection. However, it is critical for food security, business continuity and animal welfare that animal
movement be restarted. It is not feasible to issue movement permits for all animals outside of Control Areas. The designation of FMD Checked herds (below) should provide increased confidence that the herd is negative (but not a guarantee), should be feasible for premises outside of Control Areas to implement and for Regulatory Officials to monitor.

State Animal Health Officials (SAHOs) may require that healthy animals outside of a Control Area:

- Be allowed to move, with truck and driver biosecurity, directly to slaughter. No new documentation is required. As always, the animals will be subject to antemortem and postmortem inspection by USDA FSIS to ensure they are healthy and the meat is safe and wholesome for consumption.
- Be from a premises that does not have epidemiology links to a known infected premises and is FMD Checked before they are moved directly to another premises with susceptible animals for further production. SAHOs may require documentation signed by an accredited veterinarian that animals are from an FMD Checked premises that does not have known epidemiology links to an infected premises for movements between states and/or for intrastate movement. In addition, the premises of destination may also require that animals they receive have this documentation.
  - Cattle herds typically show obvious clinical signs of FMD infection. An FMD Checked cattle herd outside of a Control Area is one that has been observed by an Accredited Veterinarian, or in some cases, by someone trained in Active Observational Surveillance (AOS) as described in the Secure Food Supply Plans under the authority of an Accredited Veterinarian, within 3 (?) days of shipment and has no unusual clinical signs consistent with FMD infection. Documentation to this effect, signed by the Accredited Veterinarian, should accompany the shipment of animals.
  - Swine are less likely than cattle to show obvious clinical signs of FMD infection. An FMD Checked swine herd outside of a Control Area is one that has had a negative FMD PCR test of a representative sample of the herd (e.g. oral fluids or processing fluids) within 3 (?) days of shipment. Or, if testing capacity is limited, documentation of negative Active Observational Surveillance (AOS) as described in the Secure Food Supply Plans. A copy of the test results or AOS results are required to accompany the shipment of animals to document that they are from an FMD Checked herd.
  - Sheep may only have mild or no clinical signs of FMD infection. A sheep flock may have been infected for a prolonged time without detection. An FMD Checked sheep flock outside of a Control Area is one that has had a negative FMD PCR test and antibody test of a representative sample of the flock on pooled oral swabs within 3 (?) days of movement. A copy of the test results are required to accompany the shipment of animals to document that they are from an FMD Checked flock.
- The requirements for FMD Checked status for movements of animals outside of a Control Area may only be for the first weeks of an FMD outbreak in the U.S. when there is limited confidence of the extent of the outbreak.
- Note that some of the sample types and tests recommended above are not yet validated for use by NAHLN labs.
- Interstate movements, regardless of whether a Control Area is involved, must meet all the normal requirements for movements between states, in addition to any requirements that the animals are from an FMD Checked herd.
**PROPOSED State Status in National Phase 1:**

All states are FMD Free states before the first case of FMD in the U.S. After the first case in the U.S. they will receive one of the designations below. The state can attain FMD Monitored State status during Phase 2 after adequate surveillance, epidemiologic investigation, and movement controls (See Appendix) are in place to give confidence of absence of FMD virus infection in the state.

- **State not-known to be infected with FMD:** FMD is confirmed in the U.S., but not in this state. Adequate surveillance, epidemiologic investigation, and movement controls (to be defined) are not yet in place to give confidence of absence of FMD virus infection in the state.

- **FMD Positive State:** FMD infection in the state confirmed by FADDL

**National Phase 2 (See Phases and Types of FMD Outbreak document):**

Surveillance and epidemiology provides timely evidence of the extent of the outbreak (characterized as one of six types) to support planning and decision making by Incident/Area Command.

**PROPOSED State Status in National Phase 2:**

- **State Not-Known to be Infected with FMD:** FMD has been confirmed in the U.S., adequate surveillance, epidemiologic investigation, movement controls and biosecurity (See Appendix) are not yet in place to give confidence of absence of FMD virus infection in the state (this may take considerable time).

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**Possible consensus recommendations from NASAHO regarding surveillance for FMD at the beginning of an FMD outbreak:**

A. Accredited veterinarians, who have completed specific training should collect, or direct collection of, samples from herds that meet criteria for suspicion of FMD infection and submit them to an approved NAHLN lab for FMD PCR testing. Samples that do not have a negative test should be confirmed at FADDL.

B. USDA should pay the costs for sample collection and testing in order to ensure rapid surveillance for FMD. USDA will need to be prepared to quickly activate emergency funding accounts to pay private veterinarians (and technicians), NAHLN laboratories and to reimburse states for additional surveillance/epidemiology related costs.
- Allow properly trained accredited veterinarians with permission from USDA, to collect, or direct collection of, samples from herds that meet criteria for suspicion of infection (See Appendix) and submit to a NAHLN laboratory. NAHLN laboratories may also test representative recently archived samples for FMD virus to quickly gather epidemiologic data regarding potential presence of, or lack of, FMDV infection in their state and to establish FMD Checked status for a premises. A state will not be declared to be infected until confirmed by FADDL.

- **FMD Monitored State:** State has conducted adequate surveillance and epidemiologic investigations and has adequate movement controls and biosecurity in place based on the Secure Food Supply plans to give reasonable confidence there is no FMD virus infection in the state. A State may apply to the USDA to receive FMD Monitored status.
  - Allow accredited veterinarians to continue to collect, or direct collection of, samples from herds that meet criteria for suspicion of infection (See Appendix) and submit to an approved NAHLN lab to quickly discover potential infected premises. Approved NAHLN laboratories have tested representative recently archived samples from herds in the state and found no evidence of FMD virus infection.
  - Animals in an FMD Monitored State can be allowed to move between states with a high degree of confidence that they won’t be moving FMD virus.

- **FMD Positive State:** FMD infection anywhere in the state confirmed by FADDL.
  - Allow accredited veterinarians with proper training to collect, or direct collection of, samples from herds that meet criteria for suspicion of infection (See Appendix) and submit to the NAHLN lab in their state (or a NAHLN Lab in another FMD positive state). This will enable State Officials to quickly gather epidemiologic evidence of the extent of the outbreak in their state and to gather evidence that would facilitate control and/or elimination of FMD virus infected herds, allocation of vaccine, issuing movement permits for premises inside Control Areas according to Secure Food Supply (SFS) Plans and to establish FMD Checked status for premises outside of Control Areas.

**FMD positive states will be designated by Federal Officials as having one of five proposed levels**

**FMD Positive State – Level 1, Stamping out:** Focal area of infection limited to one or a small number of herds with low to moderate livestock numbers. Epidemiologic investigation and surveillance indicate that FMDV has not spread beyond the initial few premises. The Infected Premises have not had extensive animal movement and are not too large to depopulate quickly. Rapid stamping-out is feasible.
  - Standstill in Control Area(s) and rapid stamping out without vaccination.
  - Continue strict quarantines/movement controls for animals, vehicles, etc. within the Control Area(s) (movement by permit consistent with specific SFS business continuity plans).
  - Continue stamping-out with rapid depopulation, disposal, and virus elimination of Infected and Contact Premises.
Design and implement surveillance to obtain data to establish that the state is free of FMD infection without vaccination.

SAHOs will determine if they will allow animals from other states to enter their state for slaughter or further production. This may depend on the FMD status of other states, surveillance and biosecurity compliance with SFS Plans, whether the animals come from within or outside of a Control Area, FMD Checked status of a herd, and the vaccination or recovery status of the animals.

**FMD Positive State – Level 2, Stamping out with vaccination:** A few focal areas of infection limited to an area with low to moderate livestock numbers on small to medium size premises. Epidemiologic investigation and surveillance indicate FMDV has not spread beyond the Control Area(s) within the state. The Infected Premises have not had extensive animal movement out of the Control Area and are not too large to depopulate quickly.

- Continue strict quarantines/movement controls for animals, vehicles, etc. within the Control Area and stamping out of all infected and contact premises. Consider allowing movement of animals with no evidence of infection out of the Control Areas according to the SFS Plans.
- Consider establishing a Suppressive Vaccination Zone and/or Protective Vaccination Zone. This would be a vaccinate-to-kill plan with eventual depopulation and disposal, or slaughter, of vaccinated animals (unless the epidemiologic situation changes).
- SAHOs will determine if they will allow animals from other states to enter their state for slaughter or further production. This may depend on the FMD Status of other states, surveillance and biosecurity compliance with SFS Plans, whether the animals come from within or outside of a Control Area, FMD Checked status of a herd, and the vaccination or recovery status of the animals.

**FMD Positive State – Level 3, Vaccination with limited stamping out:**

Multiple areas of infection are detected in the state, or the type, number and/or size of infected and contact herds are too great to depopulate quickly enough to suppress disease spread. Stamping-out of some Infected and Contact Premises may need to be discontinued. Some herds may be allowed to recover. There is a reasonable likelihood that the response strategy, including vaccination, will bring the outbreak under control in the state.

- Allow some infected herds to recover with strict biocontainment. Implement suppressive or protective vaccination as vaccine becomes available. Resume intrastate and interstate movement of animals according to SFS Plans.
- Infected premises that are not depopulated will need to demonstrate that there is no evidence of FMDV transmission after the herd has recovered (see 2019 OIE Terrestrial Animal Health Code Chapter 8.8). Some Infected and Contact Premises (or severely affected individual animals) may be euthanized based on epidemiologic or humane considerations. Some recovered herds may be depopulated through controlled marketing.
Continue strict quarantines/movement control for live animals and vehicles, etc. within the Control Area. Consider allowing movement of animals with no evidence of infection (including vaccinates) according to the SFS Plans.

A vaccinate-to-live policy may be considered to reduce the shedding and spread of the virus. Officially identify all vaccinated animals according to a nationally standardized schema for surveillance and monitoring purposes (See Appendix).

SAHOs will determine if they will allow animals from other states to enter their state for slaughter or further production. This may depend on the FMD status of other states, surveillance and biosecurity compliance with SFS Plans, whether the animals come from within or outside of a Control Area, FMD Checked status of a herd, and the vaccination or recovery status of the animals.

**FMD Positive State – Level 4, Vaccination with no stamping out:**
Widespread areas of infection are detected involving too many herds or herds that are too large to depopulate quickly enough to suppress disease spread. There are infected herds throughout the state or a region of the state, with many newly infected herds identified weekly. The magnitude and speed of spread of FMD infection overwhelms local, state, and federal resources. It becomes impossible to manage Control Areas. Advise all producers to implement strict biosecurity to protect their herds according to the SFS plans and implement biocontainment for infected herds. Begin vaccinating as soon as vaccine becomes available, with a goal of vaccinating all designated susceptible animals (see Appendix) in the state. Allow all animals that can pass FSIS inspection (including vaccinates and recovered animals) to move to slaughter.

- Widespread vaccination of all designated susceptible animals, move animals with no evidence of infection, vaccinated animals and recovered animals to slaughter in state or to other states as appropriate. Move vaccinated and recovered animals to other vaccinated or recovered production sites within state or to other states in Level 4 or 5 status as needed.
- Multiple states in Level 4 may agree to form a Level 4 Region with common plans for allowing animals to cross state borders.
- SAHOs will determine if they will allow animals from other states to enter their state for slaughter or further production. This may depend on the FMD status of other states, surveillance and biosecurity compliance with SFS Plans, whether the animals come from within or outside of a Control Area, FMD Checked status of the herd, and the vaccination or recovery status of the animals.

**FMD Vaccinated State – Level 5– Any state that has achieved a 95% (?) vaccination rate of designated susceptible animals:**
A state, regardless of its FMD infection status that has achieved at least a 95% (?) vaccination rate of designated susceptible animals will be designated by Federal Officials as an FMD vaccinated state. It is not feasible to achieve a 100% vaccination rate in a state because calves and pigs are continually being born and added to the herds and because booster vaccinations will be needed on a designated schedule. It is feasible to achieve a 100% vaccination rate in a
herd. An FMD vaccinated herd should have sufficient herd immunity to prevent FMD spread within the herd. An FMD Vaccinated State should have a very low level, or no, FMD virus circulation within the state. Herds that have recovered from FMD infection should be vaccinated to ensure that the herd has uniform herd immunity to suppress FMD virus spread.

Possible consensus recommendations from NASAHO regarding movement of animals from vaccinated herds or herds recovered from FMD between FMD positive states.

A. Animals from herds that were vaccinated at least two weeks previously (two weeks after the second dose if two doses are recommended) should be allowed to move for slaughter to any status 2, 3, 4 or 5 FMD positive state. (Note that the typical vaccine withdrawal time for slaughter is 3 weeks)

B. Animals from herds that were vaccinated at least two weeks previously (two weeks after the second dose if two doses are recommended) should be allowed to move for further production to any status 3, 4 or 5 FMD positive state.

C. Animals from vaccinated herds in an FMD Vaccinated State should be allowed to move to any FMD Positive state that allows vaccination for further production or for slaughter.

D. Other?

Proposed Transition to National Phase 3, the Recovery Phase: Surveillance and epidemiologic evidence indicates that the outbreak is coming under control and a plan is implemented to regain FMD-free status for the nation (possibly with vaccination).

In order for the Nation to enter Phase 3, each FMD positive state will likely need to have a plan for control and elimination of FMDV infection. This must be accompanied by a surveillance plan to include testing capable of detecting infection in vaccinated herds (DIVA serologic testing) and detection of FMD virus circulation in recovered herds (if applicable). The recovery phase for FMD Free Status will likely be state-by-state initially. Individual states are designated to be in the Recovery Phase after they file a plan that is acceptable to the USDA to recover FMD free status, perhaps with vaccination. The recovery plan will depend on the Type or Status of outbreak on a national, regional, or state scale. The options available to the states may be designated by responsible federal officials based on the characteristics of the national outbreak and the status of the outbreak in that state. For example, if the nation progresses to a type 4 or 5 outbreak, all states may be required to vaccinate all designated susceptible animals (when sufficient vaccine becomes available) in order to suppress virus circulation to a very low level before entering the recovery phase. Then an extensive surveillance program could be implemented to demonstrate that FMD virus is not circulating within the state. Livestock production systems with excellent biosecurity may be allowed to request an exemption from the requirement to vaccinate. They will need to continue extensive surveillance to demonstrate lack of evidence of infection.
ASuppressive Vaccination
Suppressive (or ‘damping down’) emergency vaccination is conducted in the infected area where the virus is already circulating. It is intended to reduce virus transmission, aid control efforts and prevent FMD from spreading beyond the infected zone. For example, the Netherlands used suppressive vaccination to prevent FMDV from spreading when suspect farms could not be culled rapidly. Suppressive vaccination is likely to face a more severe virus challenge than protective vaccination: Infected animals may already be present on a farm in areas where this form of vaccination is used. In contrast, animals in uninfected areas (protective vaccination) are likely to be exposed to smaller amounts of virus in aerosols and on fomites.

BProtective Vaccination
Protective emergency vaccination, which is conducted among animals in uninfected areas, creates a zone of animals with reduced susceptibility around the infected area.

Appendices:
These appendices will be expanded with more explanatory information and details after the major bullet points have been agreed to.

A. Identifying herds that qualify for FMD testing based on criteria for suspicion of FMD infection
• Herds with epidemiologic links to known or suspected infected premises
• Herds with animals that have clinical signs consistent with FMD infection in the absence of other known causes:
  o Some combination of unusual incidence of: vesicles, lethargy, anorexia, febrile, lameness, salivation
• Accredited veterinarians should have discretion to decide which herds to test. The test submission request must also have a justification for testing this herd/flock.
• Swine producers who have recently submitted appropriate samples to a NAHLN lab that has archived the samples could request that a representative set of those samples be rapidly tested for FMD.

B. Training for Accredited Veterinarians on sample collection and submission for FMD
• Communication with State and Federal response coordinators
• Identification of herds qualified for testing
• Appropriate samples to collect from each species
• Method of sample collection
• Procedures for packaging and shipping or delivering samples
• List of approved NAHLN labs for submission of samples
• Biosecurity for entering and leaving livestock premises

C. Adequate epidemiologic investigation, surveillance, biosecurity and movement controls needed to be in place to give confidence of absence of FMD virus infection in an FMD Monitored State.
• All herds that qualify for FMD testing as listed above have been sampled and found to be negative for FMD virus and/or antibody
• Movement controls and permitting are in place to assure with a high degree of confidence that FMD infected animals are not moved into the state
• During the first weeks of an FMD outbreak in the U.S., only animals from FMD Checked herds (as described above) are allowed to move directly to another premises with susceptible animals for further production. After adequate vaccine becomes available in a Type 3 or greater national outbreak, only animals from another FMD Monitored state or an FMD Vaccinated herd are allowed to move directly to another premises with susceptible animals for further production.

D. Criteria for vaccinated animals (herds) to be considered immune and safe to move without spreading infection

• Two weeks after vaccination if a high potency single dose FMD vaccine is used, or two weeks after the second dose of a two dose FMD vaccine has been administered should be sufficient to ensure lack of susceptibility to virus transmission.
• The designated percentage of animals in the herd are vaccinated.
• Booster vaccine doses have been administered as required.
• Vaccinated animals are identified according to a national animal ID schema.

E. Criteria for recovered animals (herds) to be allowed to move to slaughter or to another FMD immune production setting with low risk of spreading FMD infection.

• At least four weeks after the last clinical signs of FMD in any animals in the herd have subsided should be sufficient to ensure that the herd is not susceptible to virus transmission.

F. Define designated susceptible animals to be vaccinated

• Responsible Regulatory Officials will decide which species are eligible for vaccination, the frequency of vaccination and the appropriate age of vaccination:
  o Bovine
  o Porcine
  o Ovine
  o Caprine
• When sufficient vaccine is not available for all designated susceptible animals, the SAHO for each state will decide the priority for allocation of vaccine available to that state. The justification for the prioritization will be provided to USDA with the request for vaccine.
• All designated animals will be vaccinated in a state, region, or the entire nation when sufficient vaccine becomes available, unless the owners petition to be exempted from having certain animals vaccinated. The animals that are not vaccinated will need to be maintained in a biosecure environment and may only move with a permit.

G. Develop a nationally standardized animal ID schema to identify FMD vaccinated animals and FMD recovered animals.

• Radio frequency identification (RFID) tags will facilitate record keeping, rapid animal identification, decision making and rapid permitting of animal movements.
Some animals may be identified as groups rather than individual animals.

Please send comments and suggestions to:

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